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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,584	08/05/2003	Trent West	81876-4094	8650
28765	7590	03/03/2005	EXAMINER	
WINSTON & STRAWN PATENT DEPARTMENT 1400 L STREET, N.W. WASHINGTON, DC 20005-3502			COMPTON, ERIC B	
		ART UNIT	PAPER NUMBER	3726

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,584	WEST, TRENT	
	Examiner	Art Unit	
	Eric B. Compton	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 November 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/31/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 19-21, 23-24, and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by GB950127 to Lederrey. Note: U.S. Pat. 3,242,664 is an equivalent to Lederrey.

Regarding claim 1, Lederrey discloses a method of making a jewelry article (an outer ring 1 for a watchcase) which comprises providing an annular body made of a hard material consisting essentially of tungsten carbide, with the annular body having at least one external facet, and grinding the at least one external facet to a predetermined shape to provide a pleasing appearance to the jewelry article, with the hard material being long wearing and virtually indestructible during use of the article.

The reference discloses, "The upper surface of piece 30 can be polished in the usual manner, by means of a grinding wheel leaded with a finely divided diamond powder." EPO disclosure.

Note: a watch case may be considered an article or jewelry. See U.S. Pat. 3,719,479, Col.3, line 39-40 (disclosing "the ring shape is to be used for jewelry, e.g., a watch case ...").

Art Unit: 3726

Regarding claim 2, the article “can also be given new shapes comprising large polished visible surface areas. The colour of the material consisting of sintered tungsten carbide is darker than that of steel, thus giving the watch case according to the invention an original ornamental appearance.” EPO disclosure.

Regarding claim 3, “Only diamond and, in some instances, carborundum are able to scratch such pieces … [thus] it will keep its appearance during an almost limitless period, even if it is worn in the roughest conditions.” *Id.*

Regarding claim 18, the reference discloses compensating for shrinkage. This is a design detail that Applicant addresses as well.

Regarding claims 19-21, 24 and 26 “To form a piece of a material containing tungsten or titanium carbide, an intimate mixture is first prepared, for instances in a ball mill, with a powder of the metal carbide and a powder of a bonding material such as for instance cobalt, the particles of both powders thereby having very small sizes.” EPO disclosure (noting the use of sintered tungsten carbide powder).

Regarding claim 23, as shown in the Figures, the facet may be curved.

Regarding claim 27, Lederrey discloses “This mixture [of powder carbide and binder] is then submitted to a preliminary sintering so as to form a solid block which can however *still be machined easily* for instance by means of a diamond tool.” Col. 1, line 71 – Col. 2, line 2 (emphasis added). It is only afterwards that pieces are cut from the block at subject to final sintering in a furnace. See Col. 2, lines 2-5. Thus, Lederrey does not teach that this preliminary step to be considered a typical sintering step.

Applicant notes with respect to the invention, “Referring now to FIG. I of the drawing, a

compressive mold is depicted at 10 including an annular cavity 12 generally illustrated and configured to receive a quantity of powdered, hard metal or high tech ceramic material that can be compressed and formed into an oversized "green" ring blank by the application of compressive forces applied by a mating press member 14." Specification, page 6. "Once removed from the mold, the blank 20 is shaped by machinery filing, sanding, trimming or other appropriate techniques and may be burnished as illustrated in FIG. 3 to provide a smooth or textured surface, and made ready for sintering [which hardens the blank]." Specification, page 7. Thus, it appears in context it appears that the steps of Lederrey and Applicant are identical, and only a full single sintering step for hardening the blank is actually used. The preliminary sintering of Lederrey is akin to the molding of Applicant.

Regarding claim 28, as shown in Figure 2, inner surface (8) surrounding watch glass (3) and outer surface (2) are concentric and contiguous.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-10, 14, 17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lederrey in view of the U.S. Pat. 3,837,163 to Fujimori, JP 61-177351 to NIPPON TUNGSTEN, JP 64-008245 to Maruyama et al ("Maruyama"), and U.S. Pat. 4,740,935 to Goniat (collectively referred to in this action as "the state of the art").

Lederrey discloses a hard material consisting essentially of tungsten carbide powder and a metal binder material. However, the reference does not disclose the weight percent of the hard material or density.

Applicant notes these variables provide for finished "polished tungsten carbide jewelry articles have a grey color and a reflective mirror finish." Specification, pages 10-11 (as amended). Lederrey discloses "The color of the material consisting of the sintered tungsten carbide is darker than that of steel, thus giving the watch case according to the invention an original ornamental appearance." Col. 5, lines 43-56.

Fujimori discloses a watch-band made of a hard material comprising tungsten carbide (WC). The band is made by ground and polished to a mirror finish. Col. 2, line 18. The reference discloses:

Watch-bands having a useful life exceeding that of leather have generally been made of stainless steel or silver or gold alloys. Such materials, whether in their natural state or plated with a metal, are nevertheless subject to scratching and abrasion by concrete, dust and the like so that it is difficult, if not impossible, to maintain such watch-bands in a condition in which they have a high lustre. In view of the relative softness of such materials, even in the case of stainless steel, it is impossible to maintain a mirror-finish. The wearer of such a watch-band must therefore resign himself to a decrease in the attractiveness of the watch-band or to relatively frequent refinishing of the watch-band.

Col. 1, lines 4-17.

NIPPON TUNGSTEN discloses a sintered alloy comprising tungsten carbide, e.g. 82%."The alloy is *used for watch cases, necklaces, and other ornamental parts*, and has a hardness as high as 1100-1300 Hv, good corrosion resistance and brazing ability w.r.t. stainless steel and to Inconel." Derwent Abstract (emphasis added).

Maruyama discloses a hard material composed principally of tungsten carbide. "By the above constitution, the hard alloy having mechanical strength, corrosion resistance, and polishing brightness characteristics well-balancedly at respectively high levels can be obtained. Accordingly, *this alloy is suitable for watchband, watchcase, etc.*" JPO Abstract (emphasis added).

Goniat discloses a method for making jewelry, including a sintered hard metal plate of the type of material disclosed in U.S. Pat. 3,837,163, Fujimori, *supra* (disclosing a hard metal watch band including tungsten carbide). Col. 2, line 34. "This invention relates to *pieces of jewelry such as for instance watchcases, watchbands, bracelets, rings, cuff links, brooches, pendants and the like, which are protected by a sintered hard metal shielding ...*" Col. 1, lines 11-14 (emphasis added). In the embodiment shown in Figures 2-4, a hard metal plate (22) of the sintered hard metal material, which may be tungsten carbide. Col. 6, lines 10-11. The plate may be machined and provided with facets (31) and may include opening to incorporate gems (29). Col. 6, lines 51-56.

The state of the art teaches that it has been known in the art to form various jewelry articles from a hard material comprising tungsten carbide. The material is known

Art Unit: 3726

for its attractive luster, high hardness and resistance to scratching. MPEP § 2144.07 provides:

The selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor-pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.).

See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.).

Thus, regarding claims 9-10, 14, 17, and 22, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed an earring, bracelet, or any other jewelry article by the method of Lederrey, since it has been held that it is *prima facie* obvious to select a known material based on its suitability for its intended use.

Regarding claim 9 and the concentration of tungsten carbide, Maruyama, Table 1, discloses embodiments having a concentration of tungsten carbide in excess of 85% weight percent. Although, the hard material of Maruyama includes nickel and chromium, so does Applicant in these ranges, used as a binder. See Specification, page 6.

Art Unit: 3726

"[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 22 and the density of the hard material, Maruyama discloses a hard material having the same relatively ranges of tungsten carbide and binder materials. *Compare Table 1 with Applicant's Specification*, page 6. "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claims 10 and 14, Gogniat discloses forming a tungsten carbide plate member. The plate member was machine to include recesses for (pre-cut) gems. See Figure 4.

5. Claims 4-8, 10-17, and 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lederrey in view of the state of the art and further in view of U.S. Pat. 5,003,678 to Oganeyan; U.S. Pat 1,863,618 to Brogan; Aus. Pat. 208,883 to Hawke; and U.S. Pat. 3,712,079 to Eberle.

Lederrey and the state of the art disclose forming jewelry articles from a hard material including tungsten carbide. Gogniat, cited as the state of art, disclosed forming a tungsten carbide plate member for a watch. The plate was machined to include recesses for gems.

Art Unit: 3726

However, these references do not disclose the ring forming steps as claimed.

Oganeyan discloses methods for forming a ring by machining a groove into a ring and forming facets to hold gems and other precious gems.

Brogan discloses methods for forming rings comprising machining a groove into ring and forming facets to hold gems and other precious gems.

Hawke disclose method for forming rings having inserts/inlays (8) of a precious metal.

Eberle teaches using molten material (abstract, lines 6-7) to form an inlay to create a jewelry article having two types of metal.

Regarding claims 4-8, 10-17, and 25, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the ring disclosed by Lederrey in view of the state of the art, having multiple facets and included gems or inlays, in light of Oganeyan, Brogan, Hawke, and Eberle, since these designs for rings and other jewelry are well known in the jewelry art and would be desired by consumers as well.

Furthermore, it has been held that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art. *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947).

Response to Amendment

6. The declaration of Trent West filed on November 29, 2004 under 37 CFR 1.132 has been considered but is ineffective to overcome the Lederrey reference applied as a 102(b) reference.

Evidence of secondary considerations, such as unexpected results or commercial success, is irrelevant to 35 U.S.C. 102 rejections and thus cannot overcome a rejection so based. *In re Wiggins*, 488 F.2d 538, 543, 179 USPQ 421, 425 (CCPA 1973).

With respect to obviousness rejections, an applicant who is asserting commercial success to support its contention of nonobviousness bears the burden of proof of establishing a nexus between the claimed invention and evidence of commercial success. See MPEP § 716.03.

Applicant's sales data is apparently directed towards the products shown in the catalogues submitted with the declaration. See Exhibits A & B. These catalogues only show finger rings. Therefore, Applicant's evidence only suggests commercial success with respect to *finger rings*, and not other jewelry articles, such as bracelets and earrings.

It is noted that none of the claims explicitly requires a finger ring. Only claim 17 stated that the jewelry article formed might be a finger ring among other jewelry articles.

Response to Arguments

7. Applicant's arguments filed November 29, 2004 ("Response") have been fully considered but they are not persuasive.

Applicant argues, "Lederrey fails to recite a method for making a jewelry ring, i.e., an annular band. Lederrey is directed to a watch case having a facing or surface portion that can be made of tungsten carbide." Response, page 9. Claim 1, recites in part, "A method of making a *jewelry article* which comprises: providing *an annular ring*" and "grinding [the surface of the body] to "provide a pleasing appearance to the jewelry article." (emphasis added). Thus, the claim 1 does not specifically require forming a jewelry ring as Applicant contends. The claim only recites the preliminary shape of the material, and not necessarily the final shape of the jewelry article. Applicant contemplates a number of diverse jewelry articles, such as finger rings, earrings, and bracelets having "a generally circular configuration." See claim 17. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Claim terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art. *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003). The term "annular" means "shaped like or forming a ring. *The American Heritage Dictionary of the English Language*, Fourth Edition (2000) (definition of annular). The term "ring" means "A circular object, form, line, or arrangement with a vacant circular

center." *The American Heritage Dictionary of the English Language*, Fourth Edition (2000) (1st definition of ring). The second dictionary definition is directed to a finger ring, however, Applicant does not necessarily require the jewelry article to be a finger ring, as evidence by claim 17 (claiming jewelry article may be a finger ring, earring, or bracelet). The definitions above are clearly broad enough to encompass the watch case of Lederrey. See Figures 1,3, 5, and 7 (showing various annular ring watch case bezel designs). Likewise, U.S. Pat. 3,719,479 notes rings are used for watchcases. See Col.3, line 39-40 (disclosing "the ring shape is to be used for jewelry, e.g., a watch case ..."). Therefore, this argument *per se* is not persuasive.

Applicant next argues that Lederrey fails to disclose the jewelry article includes a metal binder material. See Response, pages 9-10. Lederrey discloses, "The watch case of the first embodiment comprises an 50 outer piece 1 of hard metal consisting of sintered tungsten carbide powder." U.S. Pat. 3,242,664, Col. 2, lines 48-51. The transition phrase "consisting essentially of" *limits* the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). Therefore, whether or not Lederrey provides for a binder is irreverent, since the transition phrase "consisting essentially of" can only limit material components, not explicitly require them. Nonetheless, despite Applicant's arguments to the contrary, Lederrey does disclose a binder. As noted by Applicant, the reference discloses, "*Till now, nobody has*, however, imagined that workpieces of common use could be manufactured on a commercial scale with such material." Col 1, lines 43-45

(emphasis added). Thus, the subsequent disclosure of the method forming the piece of carbide material, taken in context, is not considered by Lederrey to be prior art, since he previously noted that no one previously has formed the material. See also Col. 3, lines 17-19 (disclosing the block 1 is “first prepared as explained above.”). Likewise, Lederrey noted that the prior art such use of carbides was discourages since it “cannot be effectively machined.” Col. 1, lines 48-49. However, Lederrey then teaches with respect to forming a carbide block with a binder, that it may “be machined easily.” Col. 2, line 1. By this process, “these pieces … can be made on a commercial scale without great difficulties.” Col. 2, lines 25-27. In context, Lederrey clearly provided for a hard material consisting of a binder in addition to tungsten carbide.

Furthermore, Applicant argues that claim 19 require the ring to be integrally formed. This is not found persuasive, since the outer ring (50) of Lederrey is clearly integral, i.e., one piece. Applicant seems to suggest that the transition phrase “consisting essentially of” somehow precludes Lederrey, since Lederry only discloses that the outer ring or top surface of the watchcase in made from tungsten carbide, which is attached to an insert of stainless steel. See Response, page 10. However, this is not found persuasive either. The fact that Lederrey discloses only the top portion of the watch case is tungsten carbide is immaterial, since the outer ring is still only made of tungsten carbide. Applicant suggests that the jewelry article could be, for example, an earring. Clearly, an earring would require additional structure, attached to the tungsten carbide portion, e.g., a stud, or clip, for attachment to the earlobe. Although, not

discussed by Applicant there materials are generally stainless steel or other material that does not adversely chemically react with the body.

Applicant's arguments with respect to U.S. Pat. 3,669,695 to Iler have been found persuasive. See Response, pages 10-13. Applicant's amendment to claim 1, which added the limitation, "providing an annular ring made of a hard material consisting essentially of tungsten carbide" is sufficient to overcome the 102(b) rejections based on the teachings of Iler. The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). As Applicant notes, tungsten carbide provides the annular ring with an inherently grey color. See Response, page 8. The amendment was made to "exclude[] nitrides, stainless steel, or other material in amounts that would be significant enough to provide a gold color to the tungsten-carbide containing hard material." *Id.* Iler discloses providing a the tungsten carbide powder with a mixture of nitride powders to produce a jewelry object having a "unusual gold tone."

Responses to Applicant are newly added claims are noted above in the rejections.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (571) 272-4527. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free):



Eric B. Compton
Primary Examiner
Art Unit 3726

ebc